

33. The packaging material of claim 30 wherein the first and second coating films are dissimilar.

#### REMARKS

This paper responds to the Office Action dated July 2, 2001.

**Claim 17 said to be indefinite.** The claim has been rewritten to respond to the Examiner's concerns about definiteness.

**Claims 17-19 and 30 said to be indefinite.** The independent claims have each been rewritten to recite "a same main monomer" instead of "the same main monomer."

**Claims 25 and 26 said to be indefinite.** Each of the claims has been rewritten to make quite clear that the mention of the term "surface of the second polyolefin" is not for the purpose of introducing a new element, but is instead simply to set forth the location of some other element in the layered structure.

**Claim 33 said to be indefinite.** It will be noted that the limitation of claim 33 is discussed in the specification at page 7, lines 21-23. "The third method step may be repeated for coating the other surface of the foam layer also, whereby the coating films on the two sides of the foam layer may be similar or different from each other." This limitation is shown in Fig. 2 where there is single-layer coating film A' and a multilayer coating film A, and is discussed in some detail at page 8, lines 17-20.

For convenience of reference, the Examiner may find it easier to find these references in the issued parent patent at column 3, lines 53-57 and at column 3, lines 61-65, and in Fig. 2.

From the context given above, the reader will have no difficulty appreciating what is meant by "dissimilar." For example if one coating film is a multilayer coating film A, and if the other coating layer is a single layer coating film A', then they are dissimilar. Re-consideration of the

rejection is requested.

**Claims 17-33 rejected over prior art.** All claims have been rejected as supposedly obvious over EP 0 344 726 combined with Bonis US Pat. No. 4,440,824.

The discussion to follow regarding the obviousness rejection focuses particularly on the independent claims, namely claims 17 and 19:

17. A packaging material usable for forming self-supporting packaging items, which packaging material has the form of a quasi-endless rollable web, the packaging material produced by a method comprising the steps of:

producing by expansion and extrusion a foam sheet of a first polyolefin, said foam sheet having first and second sides;

producing by extrusion or coextrusion a first coating film comprising at least one surface layer of a second polyolefin;

producing by extrusion, between the first side of the foam sheet and the surface layer of the first coating film, a first bonding layer of a third polyolefin, and immediately after extrusion applying pressure to the foam sheet, the first coating film, and the first bonding layer;

wherein the first, second, and third polyolefins are all based on a same main monomer;

yielding the foam layer of the first polyolefin coated on at least one side with the first coating film.

19. A packaging material comprising:

a foam sheet of a first polyolefin, said foam sheet having first and second sides;

a first coating film comprising at least one surface layer of a second polyolefin;

a first bonding layer of a third polyolefin between the first side of the foam sheet and the surface layer of the first coating film;

wherein the first, second, and third polyolefins are all based on a same main monomer.

*monomer* is used as the basis for the polymers of the foam sheet, the first coating film, and the first bonding layer. As it turns out, this arrangement gives rise to an outstandingly good bond between the various layers without having to resort to adhesive materials as are found throughout the prior art. Among other things, the employment of an adhesive layer leads to a structure that cannot be readily recycled due to the foreign material (as compared with same-monomer materials). What's more, the adhesives generally have a lower melting temperature than the layers being adhered, and as a result the adhesively-constructed material is more susceptible to heat, and there is the risk of delamination and weakening.

The EP reference refers (e.g. at page 4, line 10 and at later points) to "usual" lamination techniques. At the time of the EP reference, the "usual" techniques involved adhesive layers or involved co-extrusion. The claimed structure does not employ an adhesive layer, but instead uses a same-monomer material. The claimed structure does not employ co-extrusion, since the term "co-extrusion" means *simultaneous* extrusion of (here) the coating film and the foam sheet without any layer in between. So the EP reference does not anticipate, for reasons just discussed.


Bonis shows a packaging material that is *co-extruded*. The co-extrusion is of a layer of polyolefin, a layer of high-impact polystyrene and a tie layer of ethylene-vinyl-acetate copolymer or polyolefin with acrylic acid additives between these two layers. There is no hint or suggestion of the notion that three layers ought to be based on polyolefins each based on a same monomer. One skilled in the art would also appreciate that polystyrene is not a polyolefin. Even if polystyrene were a polyolefin (or if the claim were to be somehow interpreted to read out the limitation that a polyolefin is employed), the main monomer for polystyrene is incapable of being the same monomer as that used to make the tie layer.

It should also be appreciated that the packaging material of Bonis does not include a *foamed* layer.

6. The prior art does not disclose a limitation that requires the use of the same monomer for the first reference, it is

suggested that even if the references are combined, they do not render the claimed invention unpatentable. Applicant's attorney has diligently studied the cited references and is unable to find the limitation of the three layers being each based on a same monomer. It is earnestly requested that the Examiner point out where, in the references, the same-monomer limitation may be found, in the absence of which it is requested that the rejection be reconsidered.

Respectfully submitted,

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17. A packaging material usable for forming self-supporting packaging items, which packaging material has the form of a quasi-endless rollable web, the packaging material produced by a method comprising the steps of:

producing by expansion and extrusion a foam sheet of a first polyolefin, said foam sheet having first and second sides;

producing by extrusion or coextrusion a first coating film comprising at least one surface layer of a second polyolefin;

producing by extrusion, between the first side of the foam sheet and the surface layer of the first coating film, a first bonding layer of a third polyolefin, and immediately after extrusion applying pressure to the foam sheet, the first coating film, and the first bonding layer ~~all together~~;

wherein the first, second, and third polyolefins are all based on ~~the~~ a same main monomer;

yielding the foam layer of the first polyolefin coated on at least one side with the first coating film.

18. The packaging material of claim 17, wherein the method further comprises the steps of:

producing by extrusion or coextrusion a second coating film comprising at least one surface layer of a fourth polyolefin;

producing by extrusion, between the second side of the foam sheet and the surface layer of the second coating film, a second bonding layer of a fifth polyolefin, and immediately after extrusion applying pressure to the foam sheet and the second coating film;

wherein the fourth and fifth polyolefins are all based on the same main monomer as that of the first, second, and third polyolefins;

yielding the foam layer of the first polyolefin coated on one side with the first coating film and on the other side with the second coating film.

19. A packaging material comprising:

a foam sheet of a first polyolefin, said foam sheet having first and second sides;

a first coating film comprising at least one surface layer of a second polyolefin;

a first bonding layer of a third polyolefin between the first side of the foam sheet and the surface layer of the first coating film

wherein the first, second, and third polyolefins are all based on ~~the~~ same main monomer

25. The packaging material of claim 19 wherein the first coating film further comprises a sealing layer of polyethylene, a barrier layer of ethylene-vinyl-alcohol-copolymer ~~between the sealing barrier layer and~~ of ethylene-vinyl-alcohol-copolymer being ~~surface~~ between the sealing layer and the second polyolefin, a first adhesive surface layer of the second ~~propylene copolymer between the barrier~~ polyolefin, a first and adhesive layer surface of a propylene copolymer, the first adhesive layer ~~the second polyolefin of~~ and a second adhesive propylene copolymer being between the barrier layer of an ethylene copolymer and the surface layer of the second polyolefin, and a second adhesive layer of an ethylene copolymer, the second adhesive layer of an ethylene copolymer being between the barrier layer and the sealing layer.

26. The packaging material of claim 19 wherein the first coating film further comprises a protecting layer of polypropylene, a sealing layer of ethylene-vinyl-alcohol-copolymer ~~between the protecting~~ sealing layer and of ethylene-vinyl-alcohol-copolymer being ~~surface~~ between the protecting layer and the second polyolefin, a first adhesive surface layer of the second ~~propylene copolymer between the sealing~~ polyolefin, a first and adhesive layer surface of a propylene copolymer, the first adhesive layer ~~the second polyolefin of~~ and a second adhesive propylene copolymer being between the sealing layer of a propylene copolymer and the surface layer of the second polyolefin, and a second adhesive layer of a propylene copolymer, the second adhesive layer of a propylene copolymer being between the sealing layer and the protecting layer.